

## REMARKS

Claims 1-5, 10, 13-15, 21, 26-29, 35, and 36 are pending following the cancellation of claims 6-9, 11, 12, 16-20, 22-25, 30-34, and 37-96. Claims 1-3, 10, 13, 15, 21, 26, 35, and 36 are amended herein. All pending claims have been rejected under 35 U.S.C. §103(a) as being unpatentable over Grube et al. (US 6,031,455) in view of Lauber et al. (USPGP 2004/0090950). Applicants thank the Examiner for the telephonic interview of February 2, 2007. Applicants respectfully request entry of the claim amendments and reconsideration of the present application in view of the amendments above and the remarks set forth below.

### Statement of the Substance of the Interview

Pursuant to 37 C.F.R. §1.133(b), Applicants request that the following statement of the substance of the interview conducted on February 2, 2007 be made of record. In that telephone interview Examiner Daryl C. Pope discussed claim 1 with Applicants' representative Robert Hayden. Applicants sought the interview to suggest an amendment to claim 1 that would overcome Grube et al. Applicants suggested limiting the sensor of claim 1 to being a remote sensor and noted that the background section of Grube et al. spoke of the disadvantages of remote sensors, and taught a sensor clearly within a mobile communication device such as a cell phone or radio phone.

The Examiner reconsidered Grube et al. in light of the proposed amendment and decided that the processing unit 50 would no longer read on the control board of claim 1. However, the Examiner asserted that the satellite controller 30 within the satellite communication system 14 (FIG. 1) would read on the control board of claim 1. Applicants pointed out that the sensor 37 and the satellite controller 30 were not in communication with one another (FIG. 1), but the

Examiner justified the proposed rejection on the basis that the linkage between the sensor and the control board in claim 1 was not explicit. In response, the Applicants suggested further limiting the control board to be in communication with the remote sensor. Agreement was not reached as to the allowability of claim 1 given the suggested further amendments. Lastly, Applicants suggested that the proposed amendments should not require a new search as they merely narrow a claim that was already well searched.

Patentability over Grube et al.

Claim 1 has been rejected under 35 U.S.C. §103(a) over Grube et al. in view of Lauber et al. Claim 1, as amended, recites an apparatus comprising a remote sensor and a control board including a microprocessor and a plurality of serial communication ports, one of the serial communication ports providing a link to the remote sensor, the control board configured to receive and process the data from a variety of types of data collection devices, including the remote sensor. Applicants first turn to the limitation of a “remote sensor.”

During patent examination, the pending claims must be “given their broadest *reasonable* interpretation consistent with the specification.” *In re Hyatt*, 211 F.3d 1367, 1372, 54 USPQ2d 1664, 1667 (Fed. Cir. 2000, emphasis added). This means that the words of the claim must be given their plain meaning unless applicant has provided a clear definition in the specification. *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989). “[T]he ordinary and customary meaning of a claim term is the meaning that the term would have to a person of ordinary skill in the art in question at the time of the invention, i.e., as of the effective filing date

of the patent application.” *Phillips v. AWH Corp.*, 415 F.3d 1303, 75 USPQ2d 1321 (Fed. Cir. 2005) (en banc).

Applicants contend that the usage of “remote sensor” in Grube et al. provides the ordinary and customary meaning of the term “remote sensor,” namely, the meaning that the term would have to a person of ordinary skill in the art in question, and that this meaning is consistent with the specification of the pending application. Grube et al. teaches that “[t]ypically, a remote sensor remains in a fixed location, senses a particular condition for the given location, and provides the sensed condition to a central processing device.” (col. 1 lines 14-17). Applicants note that this is not to say that a remote sensor must be immobile, only that in typical use, a remote sensor remains in a fixed location. In the present application, paragraph [0006] discusses remote sensors of the prior art. Here, examples of such sensors “remotely monitor assets such as pipelines or storage tanks.” These are sensors that, in use, remain in a fixed location. In FIG. 1 of the present application, remote sensors 14, 16, and 18 are shown in conjunction with a tank 12. Here, too, the remote sensors 14, 16, and 18 remain in a fixed location while in use.

It should be clear that the broadest reasonable interpretation of “remote sensor” that is consistent with Applicants’ specification would not encompass the sensors 37 in the communication devices 22 of Grube et al. The communication devices 22 “may be cellular telephones, land mobile radios, portable radios” or basically any other portable communication device (col. 2 line 65 – col. 3 line 3). These devices are not intended to remain in a fixed location while in use, and as has been noted, Grube et al. places the sensors in the communication devices 22 specifically to make the sensors mobile to overcome issues of prior

art remote sensors. Therefore, the sensor 37 of Grube et al. does not read on a remote sensor, and further, Grube et al. teaches away from substituting a remote sensor for sensor 37.

However, even if, *arguendo*, sensor 37 of Grube et al. is viewed as a remote sensor, claim 1, as amended, recites a control board including a microprocessor and a plurality of serial communication ports, one of the serial communication ports providing a link to the remote sensor, the control board configured to receive and process the data from a variety of types of data collection devices, including the remote sensor. Grube et al. does not teach such a control board. The Examiner previously equated the processing unit 50 with the control board in the Final Office Action. Additionally, in the interview of February 2, 2007 the Examiner suggested that the satellite controller 30 could read on the control board. However, neither the processing unit 50 nor the satellite controller 30 reads on the control board of claim 1, as currently amended.

With respect to the processing unit 50 of Grube et al., the control board of claim 1 is limited to including a plurality of serial communication ports, one of the serial communication ports providing a link to the remote sensor. Although in Grube et al. “[t]he sensor 37 may be a plurality of sensors” (col. 3 line 11), Grube et al. does not teach that the processing unit 50 includes serial communication ports linking to the plurality of sensors. Similarly, with respect to the satellite controller 30 of Grube et al., Grube et al. does not teach that the satellite controller 30 includes a serial communication port that provides a link to the sensor 37.

Applicants note that Grube et al. does teach another communication device 36 in communication with the satellite controller 30. Here, a sensor 40 within the communication

device 36 communicates with the satellite controller 30 by way of satellite repeater 34. As above, however, Grube et al. does not teach that the satellite controller 30 includes a serial communication port that provides a link to the sensor 40.

Applicants also wish to note the further patentability of claim 15. Claim 15, as amended, further limits claim 1 such that the remote sensor monitors a liquid level. In the non-final Office Action mailed on April 26, 2006, the Examiner addressed liquid level monitoring with respect to now cancelled claim 16 by suggesting that “since Grube teaches monitoring weather conditions, an [sic] monitoring of a liquid level could constitute a weather condition associated with rain or flooding” (page 6) it would have been obvious to use sensor 37 to monitor a liquid level.

Applicants contend that it would not have been obvious to one of ordinary skill in the art at the time the invention was made to adapt a communication device 22 of Grube et al. which may be a cellular telephone, land mobile radio, portable radio, or other portable device to monitor a liquid level. Here, the Examiner has not cited to a particular prior art reference that provides a liquid level monitor that could be combined with the communication device 22 of Grube et al., nor has the Examiner even taken Official Notice of such devices. Applicants respectfully request that the Examiner either allow claim 15 or provide both an example of a liquid level monitoring device that could be combined with a portable communication device without making the portable communication device unsuitable for its intended use, and provide a motivation to make the combination. For example, Applicants would argue that one of ordinary skill in the art at the time the invention was made would not have been motivated to combine a

rain gage with a cell phone as a rain gage would render the cell phone unsuitable for its intended use since the rain gage would have to be held in a fixed orientation and be left in the rain.

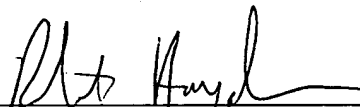
CONCLUSION

Therefore, in view of the above remarks this application is in condition for allowance, and the Examiner is respectfully requested to allow this application. The Examiner is invited to contact Applicants' undersigned representative regarding any issues that the Examiner feels are still outstanding.

Respectfully submitted,

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